

**Case 3558*****Pleurotoma scabriuscula* Brugnone, 1862 (currently *Mangelia scabriuscula*; Mollusca, Gastropoda, CONOIDEA): proposed conservation**

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**Abstract.** The purpose of this application, under Article 23.9.5 of the Code, is to conserve the specific name *Pleurotoma scabriuscula* Brugnone, 1862 (currently *Mangelia scabriuscula*, CONIDAE) originally published as *Pleurotoma scabriusculum*, a junior primary homonym of *Pleurotoma scabriuscula* Edwards, 1861 (currently *Crassispira scabriuscula*, TURRIDAE). Both names are in use, even though the latter is infrequently reported in the literature, and they have not been considered congeneric since 1899 and are unlikely ever to be treated as congeneric again. We propose that the name *Pleurotoma scabriuscula* Brugnone, 1862 (which does not have junior synonyms) be conserved by ruling that it is not invalid by reason of being a junior primary homonym.

**Keywords.** Nomenclature; taxonomy; Gastropoda; CONOIDEA; CONIDAE; TURRIDAE; *Mangelia*; *Raphitoma*; *Turris*; *Crassispira*; *Pleurotoma*; *Pleurotoma scabriuscula*; gastropods; Eocene; Pliocene; Pleistocene; Recent; Great Britain; Italy.

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1. The genus *Pleurotoma* (a Latin neologism from Greek *πλευρά* = side, and *τομή* = cut) was established by Lamarck (1799, p. 73) based on *Murex babylonius* Linnaeus, 1758 (p. 753), which is the type species by monotypy. By the mid-19th century *Pleurotoma* became one of the largest prosobranch genera with more than 700 species. However, in many cases the use of *Pleurotoma* for generic affiliation was a result of a tradition (Seguenza, 1873) or the consequence of *Pleurotoma* being very broadly defined. Hence, the need for a stricter definition of Lamarck's genus has been felt from the early-mid-19th century. Indeed, genera such as *Bela* Leach in Gray, 1847, *Crassispira* Swainson, 1840, *Mangelia* Risso, 1826, and *Perrona* Schumacher,

1817 are examples of taxa originating from *Pleurotoma* revisions (see among others Swainson, 1840; Edwards, 1857). Consequently, starting from the mid-19th century, several nominal species, such as *Pleurotoma scabriuscula* Edwards, 1861 and *Pleurotoma scabriusculum* Brugnone, 1862, previously attributed to Lamarck's genus, were re-assigned to other genera.

2. For all of the 20th century *Murex babylonius* Linnaeus, 1758 was generally considered as the type species of *Turris* Röding, 1798 (see among others Powell, 1966; Kilburn, 1983). It was also designated as the type species for *Turris* Batsch, 1789 (p. 691) by Dubois & Bour (2010, p. 171). *Turris* Batsch was established in 1789 so it has precedence over *Pleurotoma* Lamarck, 1799 and *Turris* Röding, 1798.

3. The genus *Mangelia* was described by Risso (1826, p. 221). The description of this genus was very short, and the type material for the type species is untraceable (Arnaud, 1978; Spada & Della Bella, 2010). Therefore the validity of the genus was intensely debated for almost two centuries. As a consequence several new genera were proposed that are now considered to be synonyms of *Mangelia* (Spada & Della Bella, 2010). The type species *Mangelia striolata* Risso, 1826 (p. 221) is a senior subjective synonym of *M. bertrandi* Payraudeau, 1827 (Spada & Della Bella, 2010).

4. The turrid species *Pleurotoma scabriuscula* Edwards, 1861 (p. 254) from the Eocene of Great Britain, is rarely cited in the literature (see Tucker, 2004 for references). St. John Burton (1933) was the first author to transfer the species to the genus *Drillia* Gray, 1838, whereas the most recent reference assigns *Pleurotoma scabriuscula* Edwards to the genus *Crassispira* Swainson, 1840, subgenus *Tripia* Gregorio, 1890 (see Glibert, 1960). Apart from the above cited authors, to our knowledge only Newton (1891) reported *Pleurotoma scabriuscula* Edwards, 1861 (under the genus *Pleurotoma* Lamarck).

5. The name *Pleurotoma scabriuscula* (cited as *Pleurotoma scabriusculum*) was established by Brugnone (1862, p. 39) for a fossil mangeliid from the Plio–Pleistocene of Italy (Scarponi & Della Bella, 2010 and references therein). *Pleurotoma* is Greek in origin and its gender is feminine (see Lamarck, 1801, p. 84), therefore Brugnone's spelling *scabriusculum* must be corrected. Just a few years after its first description, *P. scabriusculum* was transferred to the subgenus *Mangelia* Risso, 1826 by Seguenza (1873, p. 298). Bellardi (1877) was the first to use *Mangelia* at genus rank to contain Brugnone's species (fide Tucker, 2004). Bellardi's combination was followed by almost all subsequent authors, although a few used genera are now considered junior synonyms of *Mangelia* (i.e. *Mangilia*, *Cythara* (partim) etc.; see Spada & Della Bella, 2010 for an overview on synonymy of the genus *Mangelia*) or allied genera such as *Raphitoma* (see Seguenza, 1875). Hence, after 1899 the Brugnone species was unanimously considered to belong to the genus *Mangelia* or one of its synonyms. Indeed, almost 150 years after its description, this well known mangeliid has (to our knowledge) only been attributed to *Pleurotoma* by Moroni & Paonita (1963), but more than twenty times to *Mangelia* or its synonyms (see Tucker, 2004; Scarponi & Della Bella, 2010).

6. Both names, *Pleurotoma scabriuscula* Edwards, 1861 (currently *Crassispira scabriuscula*) and *Pleurotoma scabriuscula* Brugnone, 1862 (currently *Mangelia scabriuscula*) have been in use for over a hundred years. Both have been referred to different genera that are well separated morphologically and phylogenetically and it is unlikely that they will be treated as congeneric in the future. Furthermore,

Brugnone's species has no available synonym to use as a substitute name. Introducing a new replacement name for the widely and well known name *Pleurotoma scabriuscula* Brugnone, 1862 would result in confusion and loss of information. This application for the conservation of prevailing usage is submitted in the interest of stability and in accordance with Article 23.9.5 of the Code (that is, names not considered congeneric after 1899).

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that the specific name *Pleurotoma scabriuscula* Brugnone, 1862 is not invalid by reason of being a junior primary homonym of *Pleurotoma scabriuscula* Edwards, 1861;
- (2) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *scabriuscula* Brugnone, 1862, as published in the binomen *Pleurotoma scabriusculum*, with the endorsement that it is not invalid by reason of being a junior primary homonym of *Pleurotoma scabriuscula* Edwards, 1861 as ruled in (1) above;
  - (b) *scabriuscula* Edwards, 1861, as published in the binomen *Pleurotoma scabriuscula*.

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